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Applicants: Jennifer E. Appleyard et al.

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TEMPERATURE COMPENSATION For: IN MAXIMUM FREQUENCY

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MEASUREMENT AND SPEED SORT

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Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

AMENDMENT AND RESPONSE UNDER 37 C.F.R. §1.116

Sir:

This document is submitted in response to the Final Office Action mailed October 13,

2005. No new matter has been introduced.

CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the Patent and Trademark Office on the date shown below.

Dated: December 13, 2005

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- 4. (Original) The method of claim 3, further including measuring the chip temperature with an on-chip diode.
- 5. (Previously Presented) The method of claim 4, further including measuring the chip temperature with the on-chip diode by forcing a current through the on-chip diode, measuring the diode voltage at the start of test when the temperature during test Tdtest is known, and measuring the diode voltage again after the Fmax test when the temperature Tdtest is unknown, and using the measurements to determine a predicted Fmax at Tmax, based upon which the part is sorted into speed categories.
- 6. (Original) The method of claim 1, further including determining a change of the temperature sensitive parameter of the chip that is the chip power consumption.
- 7. (Original) The method of claim 1, further including determining a change of the temperature sensitive parameter of the chip that is the chip I (input)/O (output) timings.
- 8. (Original) The method of claim 1, further including determining maximum and minimum voltage tests which measure the highest and lowest possible voltages at which a product will operate.
- 9. (Currently Amended) The method of claim 1, wherein further including testing the chip further comprises testing the chip in preproduction tests to provide a realistic indication of speed

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